"interior" and "exterior" refer to directions toward and away from, respectively, the geometric center of the container and child-resistant closure system and designated parts thereof. The terminology includes the words above specifically mentioned, derivatives thereof and words of similar import.

[0013] Referring to the drawings, wherein like numerals are used to indicate like elements throughout, there is shown in **FIGS. 1-6**, a preferred embodiment of a container and child-resistant closure system, generally designated **10**, in accordance with the present invention.

[0014] As is illustrated in **FIGS. 1-6**, the container and child-resistant closure system **10** comprises a double-shell cap **20** and a container **70**. The cap **20** includes a top **25** with an outer circumference. A first skirt **30** depends from the outer circumference of the top **25**. A second skirt **35** also depends from the top **25**, the second skirt **35** being disposed within and spaced from the first skirt **30**. An interior surface of the second skirt **35** is provided with threads **50**. Along an interior surface of the first skirt **30**, a pair of opposing rib-like protrusions **40***a* and **40***b* are provided. The first and second protrusions **40***a* and **40***b* are generally aligned along a first axis **45** (see **FIG. 3**). On an exterior surface of the first skirt **30**, first and second finger pads **55***a* and **55***b* are provided, generally aligned along a second axis **60**, the second axis **60** being generally perpendicular to the first axis **45**.

[0015] In a preferred embodiment, the first skirt **30** is generally cylindrical in shape. One of ordinary skill in the art would recognize from this disclosure that the first skirt **30** could have other forms, for example a first portion depending from the top **25** and shaped generally as a truncated cone and a second portion, depending from a lower edge of the first portion, shaped generally as a cylinder.

[0016] In a preferred embodiment, the finger pads **55***a* and **55***b* are formed as smooth and generally planar surfaces extending slightly from the exterior surface of the first skirt **30**.

[0017] The container **70** includes a neck **75**, an exterior surface of the neck **75** being provided with threads **90** adapted to mate with the cap threads **50**. The container **70** further includes a collar **80** disposed at the base of the neck **75**. An outer edge of the collar **80** generally forms an ellipse with major and minor axes, **95** and **100**, respectively. A pair of notches **85***a* and **85***b* are formed at the apses of the major axis **95**. The notches **85***a* and **85***b* each include two side walls **105** and a base wall **110**.

[0018] A preferred embodiment of the protrusions **40***a* and **40***b* includes first and second major longitudinal sides **41** and **42**, extending generally perpendicularly from the interior surface of the first skirt **30**. When the protrusions **40***a* and **40***b* are locked into engagement with the notches **85***a* and **85***b*, as illustrated in **FIGS. 2 and 3**, the major longitudinal sides **41** and **42** are generally parallel with the side walls **105**.

[0019] The cap **20** is preferably fabricated from a thermoplastic material using injection molding or other techniques well known to those skilled in the art. The container **70** is preferably also formed from a thermoplastic material, using blow molding or other techniques well-known to those skilled in the art. From this disclosure, one of ordinary skill in the art would recognize that other conventional materials and fabrication techniques could be substituted. Also based on this disclosure, the person of ordinary skill in the art would further recognize that the relative proportions of the components illustrated could be varied without departing from the spirit and scope of the invention.

[0020] In operation, the cap **20** is threaded onto the neck **75** by rotation of the cap **20** relative to the container **70** in a first direction, the cap **20** advancing onto the container neck **75** until the protrusions **40***a* and **40***b* are positioned within the notches **85***a* and **85***b*, locking the cap **20** onto the container **70** and preventing further substantial rotation of the cap **20** relative to the container **70** in either the first or a second direction. A user may press inwardly on the pair of opposing finger pads **55***a* and **55***b* (in the direction of the arrows in **FIG. 4**), thereby deflecting the protrusions **40***a* and **40***b* out of engagement with the notches **85***a* and **85***b*, allowing the cap **20** to be rotated in the second direction (indicated by the arrows in **FIG. 5**) and removed from the container **70**.

[0021] A container and child-resistant closure system **10** is thus disclosed which provides a highly flexible and easily deformed outer skirt with locking protrusions **40***a* and **40***b*. The relatively thin wall of the first skirt **30** combined with the elliptically shaped container collar **80** allowing substantial travel of the finger pads **55***a* and **55***b* during disengagement of the protrusions **40***a* and **40***b* result in only minimal force being required to move the protrusions **40***a* and **40***b* out of engagement with mating notches **85***a* and **85***b*, thus allowing the cap **20** to be removed from the container **70**. Furthermore, the system **10** involves very simple geometry, which enhances the ease of manufacture of the cap **20** and container **70**, thus lowering the cost of the system **10**.

[0022] It will be appreciated by those skilled in the art that changes could be made to the embodiments described above without departing from the broad inventive concept thereof. It is understood, therefore, that this invention is not limited to the particular embodiments disclosed, but it is intended to cover modifications within the spirit and scope of the present invention.

1. A combination container and child-resistant closure system comprising:

a cap including a top having an outer circumference, the cap further including:

a first skirt depending from the outer circumference of the top and having a pair of opposing protrusions disposed on an interior surface, the protrusions being aligned along a first axis, and a pair of opposing finger pads on an exterior surface, the finger pads being aligned along a second axis which is generally perpendicular to the first axis;

a second skirt depending from the top and disposed within and spaced from the first skirt, the second skirt having a threaded interior surface;

a container including:

a neck forming an opening of the container, the neck having a threaded exterior surface; and

a collar at a base of the neck, the collar being generally elliptical in shape and having a generally planar, continuous upper surface, an outer edge of the collar